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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,500	03/14/2001	Jarmo Juhani Savolainen	032986-013	3615

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EXAMINER	
NGUYEN, JOSEPH D	

ART UNIT	PAPER NUMBER
2683	10

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/808,500	Applicant(s) SAVOLAINEN, JARMO JUHANI	
	Examiner Joseph D Nguyen	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 10-13, 15-16, 18-22, 24-25, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillis (5,303,297) in view of Raith (6,493,547).

Regarding claim 10, Hillis discloses a method of monitoring the chargeable activities of a user in a mobile telecommunications network (abstract, fig. 1), the method comprising the steps of:

a) Monitoring a least a first condition (C1) (local comlink loading) (fig. 2-3, col. 5 lines col. 8 lines 39-49), and a second condition (C2) (calling distance and time parameter) (fig. 2-3 col. 8 lines 39-49) on which charging is based;

b) normalizing said first condition against a first normalizing value (N1) (col. 7 lines 8-21, and col. 8 lines 17-38) and said second condition against a second normalizing value (N2) (col. 7 lines 8-21, and col. 8 lines 17-38) said step of normalizing comprising dividing the value of said condition by said normalizing value to yield normalized conditions (col. 8 lines 39-49);

c) adding said first (C1/N1) and second (C2/N2) normalized conditions to yield a total consumed charging units value (col. 8 lines 39-67). However, Hillis does not

specifically disclose comparing said total consumed charging units value against a charging unit authorization limit.

Raith teaches comparing the total consumed charging units value against a charging unit authorization limit (monthly or prepaid calling block) (col. 10 lines 1-45). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Hillis system with the teaching of Raith of comparing the total consumed charging units value against a charging unit authorization limit in order to determine the charge and to help the customer to avoid the over use limit.

Regarding claim 11, Hillis discloses the method according to claim 10, wherein said conditions include time based (time parameters) and data transfer volume (loading parameter) based conditions (col. 8 lines 39-49).

Regarding claim 12, Hillis further discloses the method according to claim 10, wherein said steps of monitoring and normalizing are carried out at the serving node for the user (#30 fig. 1 col. 5 lines 7-30).

Regarding claim 13, in the modified Hillis system, Hillis further discloses the method according to claim 12, wherein said mobile telecommunications network (fig. 1-3). However, Hillis does not specifically disclose the mobile telecommunications network is a Global System for Mobile Communications (GSM) network and said serving node is a Mobile Switching Center (MSC).

Raith teaches wherein said mobile telecommunications network is a Global System for Mobile Communications (GSM) network (fig. 1, col. 1 lines 28) and said serving node is a Mobile Switching Center (MSC) ((MTSO) (#412 fig. 4). Therefore, It would have been obvious to one skilled in the art at the time the invention was made to modify the Hillis system with the teaching of Raith of mobile telecommunications network is a Global System for Mobile Communications (GSM) network and serving node is a Mobile Switching Center (MSC) in order to determine the charge in the mobile system.

Regarding claim 15, Hillis further discloses the method according to claim 10, wherein the normalizing values are transferred from a charge control function of said network, or of another network to which the user is a subscriber, either upon initiation of a chargeable activity or prior to such initiation (fig. 3, col. 3 lines 57 thru col. 4 line 22).

Regarding claim 16, in the modify Hillis system, Hillis further discloses the method according to claim 15. However, Hillis does not specifically disclose wherein a said charging unit authorization limit, which defines a cost limit up to which the user is authorized, and against which a monitored condition or combination of monitored conditions is compared, is transferred from said charge control function to said serving node.

Raith teaches wherein a said charging unit authorization limit, which defines a cost limit up to which the user is authorized, and against which a monitored condition or combination of monitored conditions is compared, is transferred from said charge control function to said serving node (fig. 4-10, col. 6 lines 5-28, and col. 10 lines 1-61). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Hillis system with the teaching of Raith of cost limit up in order to determine the charge and to help the customer to avoid the over use limit.

Regarding claim 18, in the modify Hillis system, Hillis further discloses the method according to claim 10, wherein at least one normalized monitored condition, or a combination of normalized monitored conditions, is compared against a predetermined value (col. 8 lines 22-26). However, Hillis does not specifically disclose a predetermined value which defines a cost limit up to which the user is authorized, and, if the condition or combination of conditions reaches the predetermined value, the serving node send an authorization request to a charge controlling node.

Raith teaches a predetermined value which defines a cost limit up to which the user is authorized, and, if the condition or combination of conditions reaches the predetermined value, the serving node send an authorization request to a charge controlling node (col. 10 lines 1-28). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Hillis system with the teaching of Raith of cost limit up in order to determine the charge and to help the customer to avoid the over use limit charge.

Regarding claim 19, Hillis discloses a node (#30 fig. 1) of a mobile telecommunications network, which serves one or more mobile users (abstract, fig. 1), the node comprising:

a) means for monitoring a least a first condition (C1) (local comlink loading) (fig. 2-3, col. 5 lines col. 8 lines 39-49), and a second condition (C2) (calling distance and time parameter) (fig. 2-3 col. 8 lines 39-49) on which charging is based;

b) means for normalizing said first condition against a first normalizing value (N1) (col. 7 lines 8-21, and col. 8 lines 17-38) and said second condition against a second normalizing value (N2) (col. 7 lines 8-21, and col. 8 lines 17-38) said step of normalizing comprising dividing the value of said condition by said normalizing value to yield normalized conditions (e.g. $/minute) (col. 8 lines 39-49);

c) means for adding said first (C1/N1) and second (C2/N2) normalized conditions to yield a total consumed charging units value (col. 8 lines 39-67). However, Hillis does not specifically disclose comparing said total consumed charging units value against a charging unit authorization limit.

Raith teaches means for comparing the total consumed charging units value against a charging unit authorization limit (monthly or prepaid calling block) (col. 10 lines 1-45). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Hillis system with the teaching of Raith of means for comparing the total consumed charging units value against a charging unit authorization limit in order to determine the charge and to help the customer to avoid the over use limit charge.

Regarding claim 20, this claim is rejected for the same reason as set forth in claim 11.

Regarding claim 21, this claim is rejected for the same reason as set forth in claim 12.

Regarding claim 22, this claim is rejected for the same reason as set forth in claim 13.

Regarding claim 24, this claim is rejected for the same reason as set forth in claim 15.

Regarding claim 25, this claim is rejected for the same reason as set forth in claim 16.

Regarding claim 27, this claim is rejected for the same reason as set forth in claim 18.

3. Claims 14, 17, 23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillis (5,303,297) in view of Raith (6,493,547) and further in view of Deakin (6,463,275).

Regarding claim 14, in the modify Hillis system, Hillis further discloses the method according to claim 12, wherein said mobile telecommunications network (fig. 1-3). However, Hillis does not specifically disclose the mobile telecommunications network is a Global System for Mobile Communications (GSM) network or a serving General Packet Radio Service (GPRS) support Node (SGSN).

Deakin teaches wherein said mobile telecommunications network is a Global System for Mobile Communications (GSM) network (fig. 1, col. 1 lines 57-63) or a Serving General Packet Radio Service (GPRS) support Node (SGSN) (fig. 1, col. 1 lines 57-63). Therefore, It would have been obvious to one skilled in the art at the time the invention was made to modify the Hillis system with the teaching of Deakin of mobile telecommunications network is a Global System for Mobile Communications (GSM) network or GPRS support node (SGSN) in order to provide specific functionality to support the billing type, i.e. Hot Billing, prepaid and normal and allowing all data to be routed to the correct billing system for immediate processing; this can be fast, flexible and low priced.

Regarding claim 17, in the modify Hillis system, Hillis further discloses the method according to claim 10, wherein said user is a subscriber of a home network and the normalizing values are transferred from the home network the user is a subscriber (fig. 2, col. 3 lines 57-64). However, Hillis does not specifically the home network the user is a subscriber of a home GSM network and is roaming in a foreign GSM network, and the normalizing values are transferred from the home network to the serving node of the foreign network using the Customized Applications for Mobile Network Enhanced Logic (CAMEL) protocol.

Deakin teaches the user is a subscriber of a home GSM network and is roaming in a foreign GSM network (fig. 1, col. 3 line 15 thru col. 4 line 20), and the normalizing values are transferred from the home network to the serving node of the foreign network

using the Customized Applications for Mobile Network Enhanced Logic (CAMEL) protocol (fig. 1, col. 3 line 15 thru col. 4 line 20). Therefore, It would have been obvious to one skilled in the art at the time the invention was made to modify the Hillis system with the teaching of Deakin of home GSM network and is roaming in a foreign GSM network and the normalizing values are transferred from the home network to the serving node of the foreign network using CAMEL protocol in order to provide specific functionality to support the billing type, i.e. Hot Billing, prepaid and normal and allowing all data to be routed to the correct billing system for immediate processing; this can be fast flexible and low priced.

Regarding claim 23, this claim is rejected for the same reason as set forth in claim 14.

Regarding claim 26, this claim is rejected for the same reason as set forth in claim 17.

Response to Arguments

4. Applicant's arguments with respect to claims 10-27 have been considered but are moot in view of the new ground(s) of rejection.

5. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

703 308-9051, (for formal communication intended for entry)

Or:

(703) 305-9509 (for informal or draft communications, please label "PROPOSED" OR "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA. Sixth floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D Nguyen whose telephone number is (703) 605-1301. The examiner can normally be reached on 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703) 308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Joseph Nguyen

Jun. 14, 2004

WILLIAM TROST
SUPERVISORY PATENT EXAMINER
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